United Arab Emirates
Ministry of Education

الإمــارات العـربيـة المتحدة
وزارة التـربيـــة والتعليـــم

STUDENT SECTION					
Name				Class	
Student MOE number (SIS)		School MOE Number		STUDENT SIGNATURE	
School name					

Design Technology
Grade 7
Term 2 Sample Examination
Date: February 2018
Time: TBC
Duration: 30 minutes

STUDENT INSTRUCTIONS –
Students must attempt **all** questions.
For this examination, you must have:

1. A blue ink pen.
2. A pencil.

TEACHER NOTES & INSTRUCTIONS

Please tick ✓ the correct answers in **RED INK** and then write the mark awarded in the marking columns. With multiple mark answers highlight where the mark is awarded by **underlining** or by using an extra tick.

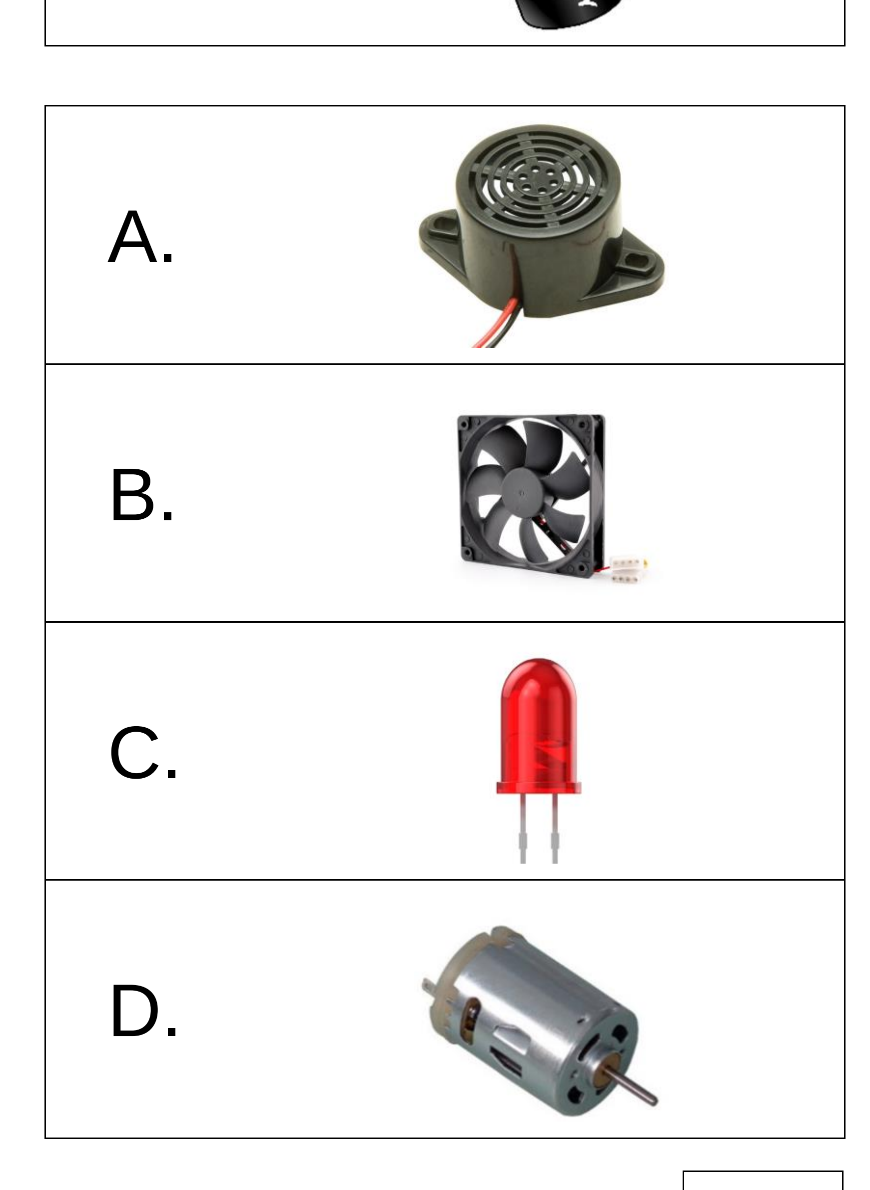
FOR ADMIN ONLY	
MARKING RECORD	
Section	Section TOTALS
Section 1	
Section 2	
Section 3	
Section 4	
MARKER SIGNATURE	TOTAL MARKS
MODERATOR SIGNATURE	

SECTION 1 – Match the Diagram to the Key Word

Match the word to the picture. Write the matching letter in the correct box. The first one has been done for you. (1 mark each)

Key Words | **Diagrams**

Key Words	
Example Battery	F
1. Fan	B
2. Buzzer	A
3. Motor	D
4. LED	C



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SECTION 2 – Multiple Choice Questions

Choose and circle the correct answer – A, B or C. **(1 mark each)**

Example: *An example of an electrical power source -*

A. robot.
B. microcontroller.
C. battery.

1. Light sensors are used in ___________________.

   A. thermometers

   B. air conditioning

   C. street lamps

2. The place where power or information enters in a system is known as:

   A. input.

   B. output.

   C. RAM

3. A sensor that detects infrared radiation is known as a:

   A. humidity sensor.

   B. IR sensor.

   C. temperature sensor.

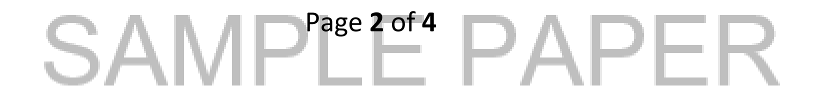
4. Which operator means **greater than or equal to**?

   A. >=

   B. <=

   C. !=

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SECTION 3 – True or False

Choose and circle the correct answer TRUE or FALSE. **(1 mark each)**

Example:
A battery is an example of an electrical power source. TRUE FALSE



1. The *Edison* uses four AAA batteries. TRUE FALSE

2. A buzzer is a type of actuator. TRUE FALSE



3. A control system acts as a hand for a system. TRUE FALSE



4. EdPy is a visual programming software. TRUE FALSE



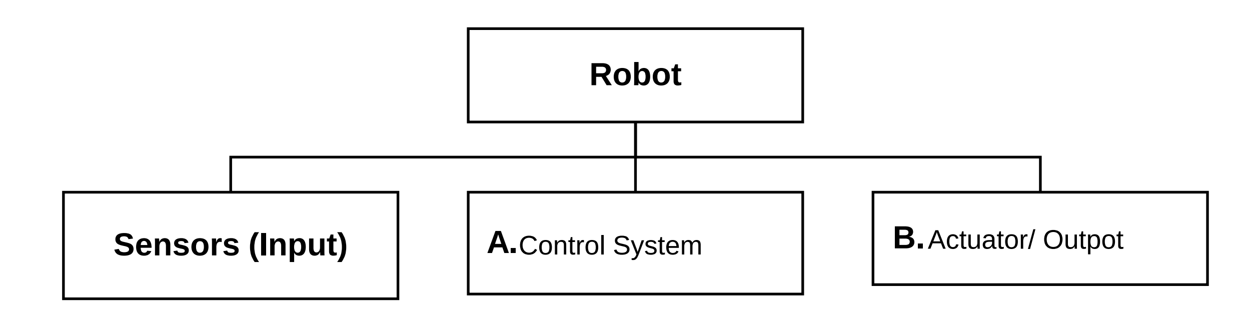
SECTION 4 – Short Answer Questions

1. What is a robot?

A machine programmed to do specific actions or things.

(2 marks)

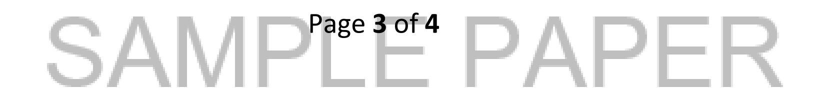
2. Complete the main parts of a robot. **(2 marks)**



3. List two types of sensors found in a robot. **(2 marks)**

a) Light Sensor

b) Sound Sensor



4. Read the following section of EdPy code and answer the questions below (in 1 or 2 words).

```
While True:
Obs = Ed.ReadObstacleDetection()
        if Obs == Ed.OBSTACLE_AHEAD:
                Ed.LeftLed(Ed.ON)
                Ed.RightLed(Ed.ON)
        elif Obs == Ed.OBSTACLE_RIGHT:
                Ed.LeftLed(Ed.ON)
                Ed.RightLed(Ed.OFF)
        elif Obs == Ed.OBSTACLE_LEFT:
                Ed.LeftLed(Ed.OFF)
                Ed.RightLed(Ed.ON)
```

4 (a) Which LED on the *Edison* will light up when the obstacle is on the right?

Left LED ______ **(1 mark)**

4 (b) Which LED on the *Edison* will light up when the obstacle is on the left?

Right LED ______ **(1 mark)**

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Solved by Yousif ziad

TOTAL

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You have now finished the examination.